

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

Claim 1 (Currently Amended): A silicon production reactor comprising a reaction vessel and heating means,

said reaction vessel comprising a vertically extending wall and a space surrounded by the wall, wherein the space of the reaction vessel is of slit form in cross-sectional view,

said heating means being capable of heating at least a part, ~~including lower end portion~~ which is 90% or less of the whole length of the vertically extending wall from the bottom thereof, of the wall's surface facing the space to a temperature of not lower than the melting point of silicon,

said heating means being divided into at least two sections comprised of a first heating means and a second heating means so that said heating means can control the temperature of the wall's surface facing the space in two or more divided sections comprised of upper and lower sections, or more multiple sections, and,

said silicon production reactor being adapted to flow raw gas for silicon deposition from an upper part of the space of the reaction vessel toward a lower part thereof. [[,]]

~~characterized in that the space of the reaction vessel is of slit form in cross-sectional view.~~

Claim 2 (Original): The silicon production reactor as claimed in claim 1, wherein the slit form has a ratio (LD/SD) of length (LD) to width (SD) of 1.5 or more.

Claim 3 (Previously Presented): The silicon production reactor as claimed in claim 1, wherein the width (SD) of the slit form is 0.1 m or less.

Claim 4 (Previously Presented): The silicon production reactor as claimed in claim 1,

wherein the vertically extending wall is constituted of a material capable of being heated by high-frequency application,

wherein a high-frequency generation coil is arranged around the vertically extending wall so as to enable heating of the vertically extending wall.

Claim 5 (Previously Presented): The silicon production reactor as claimed in claim 2, wherein the width (SD) of the slit form is 0.1 m or less.

Claim 6 (Previously Presented): The silicon production reactor as claimed in claim 2,

wherein the vertically extending wall is constituted of a material capable of being heated by high-frequency application,

wherein a high-frequency generation coil is arranged around the vertically extending wall so as to enable heating of the vertically extending wall.

Claim 7 (Previously Presented): The silicon production reactor as claimed in claim 3,

wherein the vertically extending wall is constituted of a material capable of being heated by high-frequency application,

wherein a high-frequency generation coil is arranged around the vertically extending wall so as to enable heating of the vertically extending wall.